

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-8. (Withdrawn)

9. (Currently Amended) An ~~image sensor integrated type~~ active matrix type display device ~~which is an active matrix type display device comprising over a same substrate:~~

a display matrix pixel region over a substrate having a plurality of pixel electrodes, a plurality of select lines and a plurality of signal lines, wherein said select lines and said signal lines are arranged in a shape of a lattice; and

~~an image sensor laminated with a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal in a light receiving pixel region in which a plurality of light receiving pixels are arranged over~~
the substrate;

wherein the display pixel region includes a plurality of pixel electrodes, a plurality of select lines and a plurality of signal lines, said select lines and said signal lines are arranged in a matrix shape;

wherein the light receiving pixel region includes an image sensor having a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal;

wherein the light receiving unit includes a plurality of lower electrodes separated from each other at respective of the light receiving pixels, a photoelectric conversion layer and an upper electrode common to the plurality of light receiving pixels;

wherein the upper electrode is connected to a lead-out ~~terminal~~ wiring on a light incident

side; and

wherein the lead-out ~~terminal~~ wiring is formed at a layer by a starting film different from a layer that of the upper electrode.

10. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 9, wherein the lead-out ~~terminal~~ wiring is formed by a starting film the same as a ~~starting film~~ that of the pixel electrodes.

11. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 9, wherein the lead-out ~~terminal~~ wiring is connected to a ~~second~~ lead-out terminal comprising formed by a starting film the same as a ~~starting film~~ that of either of the select lines and the signal lines.

12. (Currently Amended) An ~~image sensor integrated type~~ active matrix type display device ~~which is an active matrix type display device comprising over a same substrate:~~

a display ~~matrix pixel region over a substrate having a plurality of pixel electrodes, a plurality of active elements connected to said pixel electrodes respectively, a plurality of select lines and a plurality of signal lines, wherein said select lines and said signal lines are arranged in a shape of a lattice; and~~

~~an image sensor laminated with a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal in a light receiving pixel region in which a plurality of light receiving pixels are arranged over the substrate;~~

wherein the display pixel region includes a plurality of pixel electrodes, a plurality of active

elements connected to said pixel electrodes respectively, a plurality of select lines and a plurality of signal lines, said select lines and said signal lines are arranged in a matrix shape;

wherein the light receiving pixel region includes an image sensor having a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal;

wherein the display ~~matrix~~ pixel region includes an electrode layer covering at least the signal lines and the select lines;

wherein the light receiving unit includes a plurality of lower electrodes separated from each other at respective of the light receiving pixels, and formed by a starting film the same as ~~a starting film that~~ that of the electrode layer, a photoelectric conversion layer and an upper electrode common to the plurality of light receiving pixels;

wherein the upper electrode is connected to a lead-out ~~terminal~~ wiring on a light incident side; and

wherein the lead-out ~~terminal~~ wiring is formed ~~at a layer by a starting film~~ different from a ~~layer that~~ layer of the upper electrode.

13. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 12, wherein the lead-out ~~terminal~~ wiring is formed by a starting film the same as a ~~starting film that~~ starting film of the pixel electrodes.

14. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 12, wherein the lead-out ~~terminal~~ wiring is connected to a ~~second~~ lead-out terminal ~~comprising~~ formed by a starting film the same as a ~~starting film that~~ starting film of either of the select lines ~~and~~ the signal lines.

15. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 12, wherein the lead-out terminal wiring is connected to a ~~second~~ lead-out terminal ~~comprising~~ formed by a starting film the same as ~~a starting film that~~ of the electrode layer.

16. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 12, wherein the lead-out terminal wiring is connected to a ~~second~~ lead-out terminal comprising a starting film the same as ~~the starting film that~~ of the electrode layer and the ~~second~~ lead-out terminal is connected to a third lead-out terminal comprising a starting film the same as ~~a starting film that~~ of either of the select lines and the signal lines.

17. (Currently Amended) An ~~image sensor integrated type~~ active matrix type display device ~~which is an active matrix type display device comprising over a same substrate:~~

a display ~~matrix pixel region over a substrate having a plurality of pixels, a plurality of select lines and a plurality of signal lines, wherein said select lines and said signal lines are arranged in a shape of a lattice; and~~

~~an image sensor laminated with a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal in a light receiving pixel region in which a plurality of light receiving pixels are arranged over the substrate,~~

wherein said pixel display matrix pixel region comprising:

a plurality of pixels;

a plurality of select lines and a plurality of signal lines, said select lines and said signal lines are arranged in a matrix shape;

active elements formed over the substrate and connected to the signal lines and the select lines;

a first insulating film ~~covering~~ over the active elements;

an electrode layer formed ~~on~~ over the first insulating film and covering at least the signal lines and the select lines;

a second insulating film formed ~~on~~ over the electrode layer; and

pixel electrodes formed ~~on~~ over the second insulating film and connected to the active devices elements,

wherein said ~~image sensor~~ light receiving pixel region comprising:

an image sensor having a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal;

~~the signal reading unit formed on the substrate;~~

the first insulating film ~~covering~~ over the signal reading unit;

a plurality of lower electrodes formed ~~on~~ over the first insulating film, ~~comprising~~ formed by a starting film the same as ~~a starting film~~ that of the electrode layer and separated from each other at respectives of the light receiving pixels;

a photoelectric conversion layer formed ~~on~~ over the lower electrodes;

an upper electrode formed ~~on~~ over the photoelectric conversion layer and common to the plurality of light receiving pixels;

the second insulating film ~~covering~~ over the upper electrode; and

a lead-out ~~terminal~~ wiring formed ~~on~~ over the second insulating film and connected to the upper electrode;

wherein the upper electrode is formed by a starting film the same as ~~a starting film~~ that of the pixel electrodes.

18. (Currently Amended) The ~~image-sensor integrated type~~ active matrix type display device according to claim 17, wherein the lead-out terminal wiring is connected to a second lead-out terminal comprising a starting film the same as ~~a starting film that~~ of either of the select lines and the signal lines.

19. (Currently Amended) The ~~image-sensor integrated type~~ active matrix type display device according to claim 17, wherein the lead-out terminal wiring is connected to a ~~second~~ lead-out terminal ~~comprising~~ formed by a starting film the same as ~~a starting film that~~ of the electrode layer.

20. (Currently Amended) The ~~image-sensor integrated type~~ active matrix type display device according to claim 17, wherein the lead-out terminal wiring is connected to a ~~second~~ lead-out terminal comprising a starting film the same as ~~the starting film that~~ of the electrode layer and the ~~second~~ lead-out terminal is connected to a third lead-out terminal comprising a starting film the same as ~~a starting film that~~ of either of the select lines and the signal lines.

21. (Currently Amended) The ~~image-sensor integrated type~~ active matrix type display device according to claim 9, wherein peripheral circuits connected to the signal reading unit are installed on the substrate and the lead-out terminal is formed to surround at least portions of a periphery of the light receiving ~~matrix~~ pixels excluding portions thereof connected to the peripheral circuits.

22. (Currently Amended) The ~~image-sensor integrated type~~ active matrix type display device according to claim 12, wherein peripheral circuits connected to the signal reading unit are installed on the substrate and the lead-out terminal is formed to surround at least portions of a periphery of the

light receiving ~~matrix~~ pixels excluding portions thereof connected to the peripheral circuits.

23. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 17₁, wherein peripheral circuits connected to the signal reading unit are installed on the substrate and the lead-out terminal is formed to surround at least portions of a periphery of the light receiving ~~matrix~~ pixels excluding portions thereof connected to the peripheral circuits.

24. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 9₁, wherein the photoelectric conversion layer is patterned with the upper electrode as a mask.

25. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 12₁, wherein the photoelectric conversion layer is patterned with the upper electrode as a mask.

26. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 17₁, wherein the photoelectric conversion layer is patterned with the upper electrode as a mask.

27. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 9₁, wherein the signal reading unit is formed by thin film transistors.

28. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 12₁, wherein the active elements and the signal reading unit are formed by thin

film transistors.

29. (Currently Amended) The ~~image sensor integrated type~~ active matrix type display device according to claim 17, wherein the active elements and the signal reading unit are formed by thin film transistors.

30. (New) An active matrix type display device comprising:
a display pixel region over a substrate; and
a light receiving pixel region in which a plurality of light receiving pixels are arranged over the substrate;

wherein the display pixel region includes a plurality of pixel electrodes, a plurality of active elements connected to said pixel electrodes respectively, a plurality of select lines and a plurality of signal lines, said select lines and said signal lines are arranged in a matrix shape;

wherein the light receiving pixel region includes an image sensor having a light receiving unit for converting light into electric charge and a signal reading unit for reading the electric charge generated at the light receiving unit as a signal;

wherein the display pixel region includes an electrode layer covering at least the signal lines and the select lines;

wherein the light receiving unit includes a plurality of lower electrodes separated from each other at respective of the light receiving pixels, a photoelectric conversion layer and an upper electrode common to the light receiving pixels;

wherein the lower electrodes are formed by a starting film the same as that of the electrode layer; and

wherein the pixel electrodes are formed by a starting film different from that of the upper

electrode.

31. (New) The active matrix type display device according to claim 30, wherein the photoelectric conversion layer is patterned with the upper electrode as a mask.

32. (New) The active matrix type display device according to claim 30, wherein the active elements and the signal reading unit are formed by thin film transistors.